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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/536,892

10/12/2006

Toshiaki Maeda

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EXAMINER

CHARLES, MARCUS

ART UNIT

PAPER NUMBER

3656

MAIL DATE

DELIVERY MODE

02/06/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/536,892	Applicant(s) MAEDA, TOSHIAKI	
	Examiner Marcus Charles	Art Unit 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :5/25/2005, 02/14/2008, 06/26/2008.

DETAILED ACTION

This is the first action relating to serial application number 10/536,892 filed 10-12-2006.

Claims 1-6 are currently pending.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The examiner has accepted the drawing filed with this application as formal drawing.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, line 1 refers to a bearing with an encoder and line 8 also refers to an encoder. Therefore, it appears there exist a double inclusion. In addition, in line 4, there exists a double inclusion with "encoder" in line 4. In claims 5-6, respectively, there appears to be a double inclusion between "a roller bearing unit with an encoder" of lines 1-2 and "a roller bearing unit with an encoder" or line 2. In claim 6, there exists a double inclusion with "a rolling bearing unit" in line 4.

In claim 5, line 5, the intended scope of the claim is unclear because it is not clear as to what "these components" are referring to.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al. (5,779,368) in view of Bayre (2,922,681). Morita et al. discloses a rolling bearing unit with an encoder (13) comprising a stationary ring (8) which does not rotate, a rotating ring (5) made from a magnetic material, which rotate in use, a plurality of rolling elements (11) arrange between the inner ring raceway (3b) and the outer ring raceway (10a, b), the encoder (13) is supported on the rotating ring and concentrically with the rotating ring, and comprising a multi-polar magnet in an annular shape. Morita et al. disclose that the tone wheel (encoder 13) comprises a magnet having magnetic characteristics in the circumferential direction that can change alternately (see col. 2, lines 19-37). As well known these characteristic is due to the alternative nature of the south and north poles which are arrange alternatively around the circumferential direction. Morita et al. is silent concerning the outer ring being made from a magnetic material and the rings are demagnetized before the encoder is supported on the rotating ring. Bayre discloses a bearing (10) comprising an inner ring (11) and an outer ring (12) which are made from a magnetic material and is demagnetized before the bearing assembly before the bearing assembly in order for the bearing component to be free from residual magnetism and to avoid severe damage to the bearing by magnetic

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particles (col. 2, lines 29-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the bearing of Morita et al. so that the outer bearing race is magnetized and the magnetized races are demagnetized before the bearing is assembled in view of Bayre in order for the bearing component to be free from residual magnetism and to avoid severe damage to the bearing by magnetic particles.

Regarding claims 2-4, the combination of Morita et al. and Bayre fails to disclose magnetic flux densities of 0.5 mT or less for each component and 2mT or less for the whole of the component members; the density of the magnetic flux coming from a detection surface of the encoder is 10mT or more. It would have been obvious to one of ordinary skill in the art to use a magnetic material for the rolling bearing, which has a magnetic flux densities as set forth above, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. In addition, it would have been obvious to one of ordinary skill in the art at the time of the invention to obtain a magnetic material that has the above respective magnetic flux densities, since it has been held that where the general conditions of a claim is disclosed in the prior art, discovering the optimum ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding claims 5-6, it is apparent that the method steps are inherently included during the manufacturing of the bearing of Morita et al. and Bayre device.

Citation

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the prior art cited in attached PTO Form 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marcus Charles
/Marcus Charles/
Primary Examiner, Art Unit 3656

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